

AMENDMENTS TO THE CLAIMS

The following listing of the claims replaces all prior versions of the claims presented in the application.

1-13. (Cancelled)

14. (Previously presented) A method for inhibiting accumulation of amyloid β peptide in the brain of a patient suffering from Alzheimer's disease, comprising contacting in vivo soluble amyloid β peptide in the cerebrospinal fluid of said patient with an exogenous free-end specific antibody which is targeted to a free N-terminus of amyloid β peptide or a free C-terminus of amyloid β peptide A β 1-40, to inhibit the accumulation of said amyloid β peptide in the brain of said patient.

15-18. (Cancelled)

19. (Previously presented) The method of claim 14, wherein the antibody is a monoclonal antibody, a humanized antibody, a chimeric antibody, a scFv antibody or a F(ab), or fragment thereof.

20. (Previously presented) A method for inhibiting the neurotoxicity of amyloid β peptide in a patient suffering from Alzheimer's disease, comprising contacting in vivo soluble amyloid β peptide in the cerebrospinal fluid of said patient with an exogenous free-end specific antibody which is targeted to a free N-terminus of amyloid β peptide or a free C-terminus of amyloid β peptide A β 1-40, to inhibit the neurotoxicity of amyloid β peptide in said patient.

21-24. (Cancelled)

25. (Previously presented) The method of claim 20, wherein the antibody is a monoclonal antibody, a humanized antibody, a chimeric antibody, a scFv antibody or a F(ab), or fragment thereof.

26-54. (Cancelled)

55. (Previously presented) The method of claim 14, wherein the antibody is a monoclonal antibody targeted to the free N-terminus of amyloid β , wherein the first amino acid of said N-terminus is aspartate at position 1 of amyloid β -peptide.

56. (Previously presented) The method of claim 20, wherein the antibody is a monoclonal antibody targeted to the free N-terminus of amyloid β -peptide, wherein the first amino acid of said N-terminus is aspartate at position 1 of amyloid β -peptide.

57-71. (Cancelled)

72. (Previously presented) The method of claim 14, wherein the antibody is targeted to the free C-terminus of the amyloid β - peptide A β 1-40.

73-74. (Cancelled)

75. (Previously presented) The method of claim 20, wherein the antibody is targeted to the free C-terminus of the amyloid β - peptide A β 1-40.

76-92. (Cancelled)

93. (Previously presented) A method of obtaining an amyloid β -peptide-antibody complex which comprises forming a composition consisting essentially of:

(1) a monoclonal antibody, humanized antibody, chimeric antibody, scFv antibody, F(ab) antibody, or a fragment of the foregoing types of antibodies, that specifically binds to an epitope within residues 1-5 of said amyloid β -peptide and which binds said amyloid β -peptide but does not significantly bind amyloid precursor protein,

(2) cerebrospinal fluid; and

(3) said amyloid β -peptide.

94. (Previously presented) The method of claim 93, wherein said antibody is a humanized antibody or fragment thereof.

95. (Previously presented) The method of claim 93, wherein said antibody is a chimeric antibody or fragment thereof.

96. (Previously presented) The method of claim 93 wherein said cerebrospinal fluid consists of cerebrospinal fluid of an individual suffering from Alzheimer's disease or having a predisposition to develop Alzheimer's disease.

97. (Previously presented) The method of claim 93 wherein said amyloid β -peptide-antibody complex is a soluble complex.

98. (Previously presented) The method of claim 96 wherein said amyloid β -peptide-antibody complex is a soluble complex.

99. (Previously presented) A method of obtaining an amyloid β -peptide-antibody complex which comprises forming a composition consisting essentially of:

(1) a monoclonal antibody, humanized antibody, chimeric antibody, scFv antibody, F(ab) antibody, or a fragment of the foregoing types of antibodies, that specifically binds to an epitope within residues 34-40 of said amyloid β -peptide and which binds said amyloid β -peptide but does not significantly bind amyloid precursor protein,

(2) cerebrospinal fluid; and

(3) said amyloid β -peptide.

100. (Previously presented) The method of claim 99, wherein said antibody is a humanized antibody or fragment thereof.

101. (Previously presented) The method of claim 99, wherein said antibody is a chimeric antibody or fragment thereof.

102. (Previously presented) The method of claim 99 wherein said cerebrospinal fluid consists of cerebrospinal fluid of an individual suffering from Alzheimer's disease or having a predisposition to develop Alzheimer's disease.

103. (Previously presented) The method of claim 99 wherein said amyloid β -peptide-antibody complex is a soluble complex.

104. (Previously presented) The method of claim 102 wherein said amyloid β -peptide-antibody complex is a soluble complex.

105. (Previously presented) A method for reducing the quantity of amyloid β -peptide in the cerebrospinal fluid of a patient suffering from Alzheimer's disease which comprises contacting said amyloid β -peptide in said cerebrospinal fluid of said patient with a monoclonal antibody, humanized antibody, chimeric antibody, scFv antibody, F(ab) antibody, or a fragment of the foregoing types of antibodies, that specifically binds to an epitope within residues 1-5 of said amyloid β -peptide and which binds said amyloid β -peptide but does not significantly bind amyloid precursor protein.

106. (Previously presented) The method of claim 105, wherein said antibody is a humanized antibody or fragment thereof.

107. (Previously presented) The method of claim 105, wherein said antibody is a chimeric antibody or fragment thereof.

108. (Previously presented) The method of claim 105 wherein said antibody binds amyloid β -peptide that is soluble in the cerebrospinal fluid of said patient.

109. (Previously presented) A method for reducing the quantity of amyloid β -peptide in the cerebrospinal fluid of a patient suffering from Alzheimer's disease which comprises contacting said amyloid β -peptide in said cerebrospinal fluid of said patient with a monoclonal antibody, humanized antibody, chimeric antibody, scFv antibody, F(ab) antibody, or a fragment of the foregoing types of antibodies, that specifically binds to an epitope within residues 34-40 of said amyloid β -peptide and which binds said amyloid β -peptide but does not significantly bind amyloid precursor protein.

110. (Previously presented) The method of claim 109, wherein said antibody is a humanized antibody or fragment thereof.

111. (Previously presented) The method of claim 109, wherein said antibody is a chimeric antibody or fragment thereof.

112. (Previously presented) The method of claim 109 wherein said antibody binds amyloid β -peptide that is soluble in the cerebrospinal fluid of said patient.

113. (Previously presented) A method for inhibiting the accumulation of amyloid β -peptide in a patient suffering from Alzheimer's disease which comprises contacting said amyloid β -peptide in the cerebrospinal fluid of said patient in vivo with a monoclonal antibody, humanized antibody, chimeric antibody, scFv antibody, F(ab) antibody, or a fragment of the foregoing types of antibodies, that specifically binds to an epitope within residues 34-40 of said amyloid β -peptide and which binds said amyloid β -peptide but does not significantly bind amyloid precursor protein.

114. (Previously presented) The method of claim 113, wherein said antibody is a humanized antibody or fragment thereof.

115. (Previously presented) The method of claim 113, wherein said antibody is a chimeric antibody or fragment thereof.

116. (Previously presented) The method of claim 113 wherein said antibody binds amyloid β -peptide that is soluble in the cerebrospinal fluid of said patient.

117-120. (Cancelled)

121. (New) The method of claim 14 wherein said exogenous free-end specific antibody is stably expressed in neuronal cells in the brain.

122. (New) The method of claim 14 wherein said exogenous free-end specific antibody is stably expressed in neuronal cells in the brain.

123. (New) The method of claim 105 wherein said monoclonal antibody, humanized antibody, chimeric antibody, scFv antibody, F(ab) antibody, or fragment of the foregoing types of antibodies is stably expressed in neuronal cells in the brain.

124. (New) The method of claim 109 wherein said monoclonal antibody, humanized antibody, chimeric antibody, scFv antibody, F(ab) antibody, or fragment of the foregoing types of antibodies is stably expressed in neuronal cells in the brain.

125 (New) The method of claim 113 wherein said monoclonal antibody, humanized antibody, chimeric antibody, scFv antibody, F(ab) antibody, or fragment of the foregoing types of antibodies is stably expressed in neuronal cells in the brain.